PATENT CLAIMS:

1. – 8. (canceled)

9. (new) A method for controlling a component of a technical plant by a PI controller that has control parameters including a control ratio and an integral-action time, comprising:

defining the integral-action time;

defining an initial value of the control ratio;

defining a set value of a control quantity of the component;

determining the actual value of a controlled variable during operation of the technical plant;

changing the control ratio relative to a time response of the actual value until the actual value of the control variable remains within a tolerance band relative to the set value during operation of the technical plant; and

reducing the control ratio if the time response of the actual value has a dwell time during which the actual value has a value within the tolerance band that is smaller than a first defined time period during operation of the technical plant.

10. (new) The method in accordance with claim 9, wherein the integral-action time is determined from the system time constants.

11. (new) The method in accordance with claim 9, wherein the integral-action time is determined from the sum of the system time constants of the component to be controlled.

12. (new) The method in accordance with claim 9, wherein the control ratio is reduced if a first change rate of the actual value is greater than a second change rate of the set value.

13. (new) The method in accordance with claim 9, wherein the control ratio is increased if the time response of the actual value has a rise time that includes the period from the

start of a change of the set value until reaching an instantaneous value of the actual value within the tolerance band that is greater than a second defined time period.

14. (new) A PI controller for controlling a component of a technical plant, comprising:

a logic element having a control ratio and an integral-action time;

a first controller input adapted to provide the controller can be supplied with a defined value for the integral-action time;

a second controller input adapted so the controller can be supplied with the control ratio;

a third controller input adapted so the controller can be supplied with a set value of a control quantity of the component; and

an adaption device that constantly applies the actual value of a control variable during the operation of the technical plant so the adaption device and the control ratio can be constantly changed relative to the time response of the actual value until the actual value of the control variable remains within a tolerance band relative to the set value with the control ratio being reduced by the adaption unit if the time response of the actual value has a dwell time during which the actual value accepts a value within the tolerance band that is smaller than a first defined time period.

15. (new) The feedback controller in accordance with claim 14, wherein the integral-action time is determined from system time constants.

16. (new) The feedback controller in accordance with claim 14, wherein the integral-action time is determined from the sum of the system time constants of the component to be controlled.

17. (new) The feedback controller in accordance with claim 14, wherein the control ratio is reduced by the adaption unit if additionally a first change rate of the actual value is greater than a second change rate of the set value.

18. (new) The feedback controller in accordance with claim 14, wherein the control ratio is increased by the adaption unit if the time response of the actual value has a rise time that

includes the time period from the start of a change of the set value until achievement of an instantaneous value of the actual value within the tolerance band, that is greater than a second defined time period.